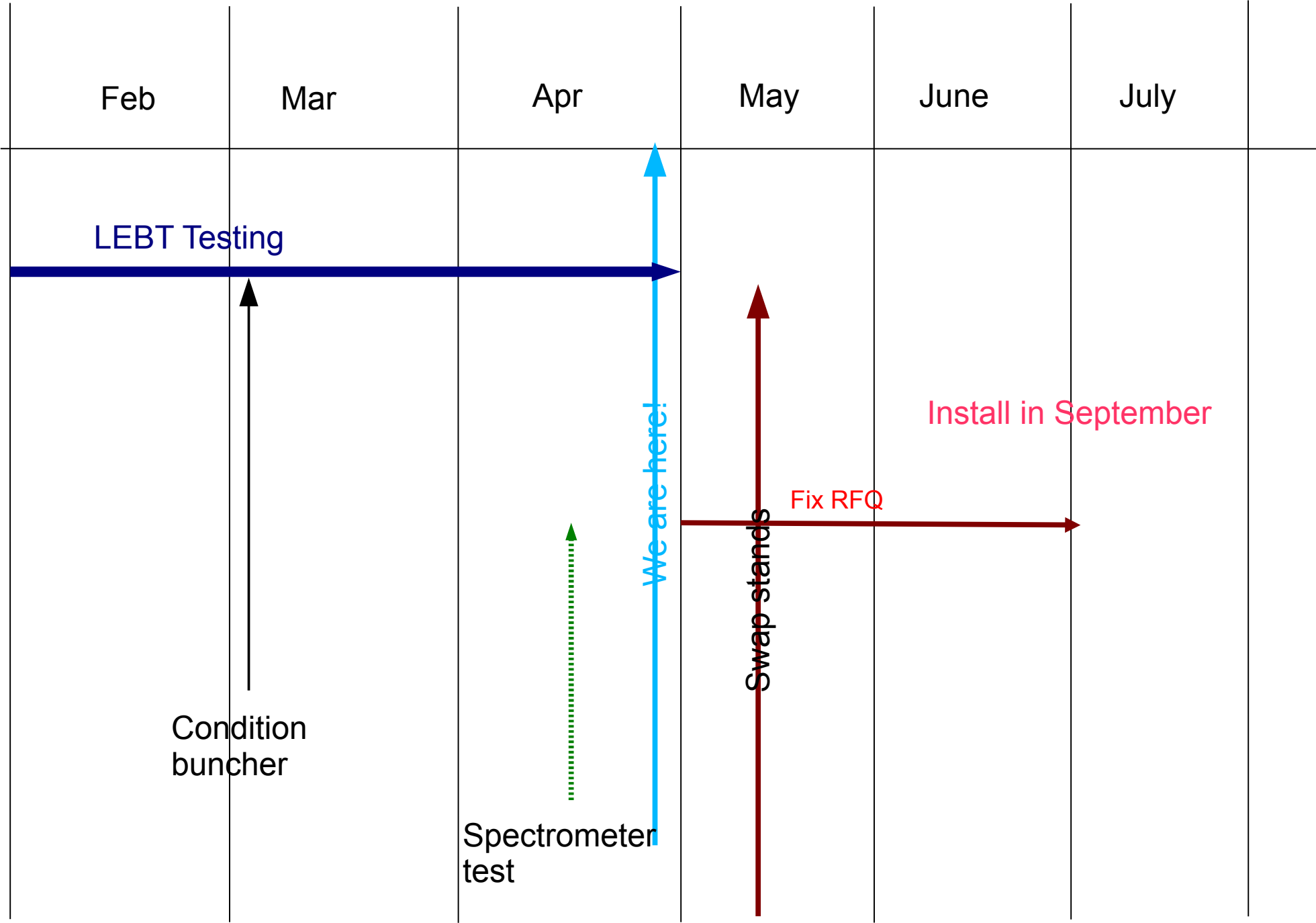


# Pre-injector Upgrade Updates (11 Apr 2012 – 25 Apr 2012)

C.Y. Tan  
25 Apr 2012

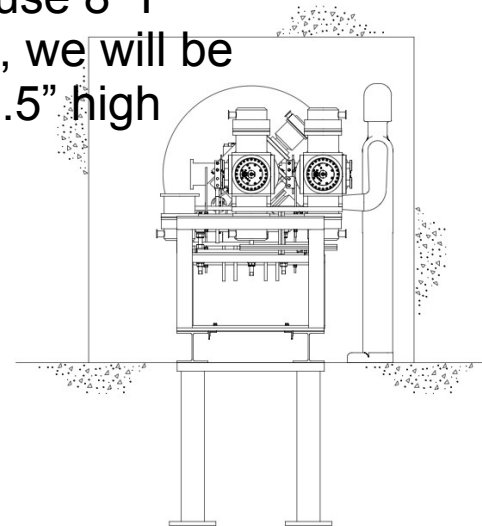
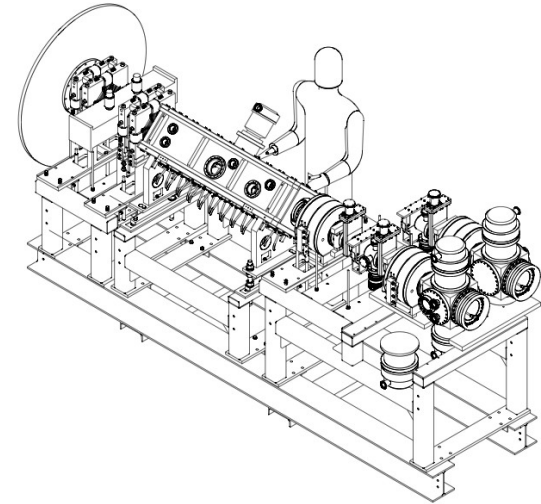
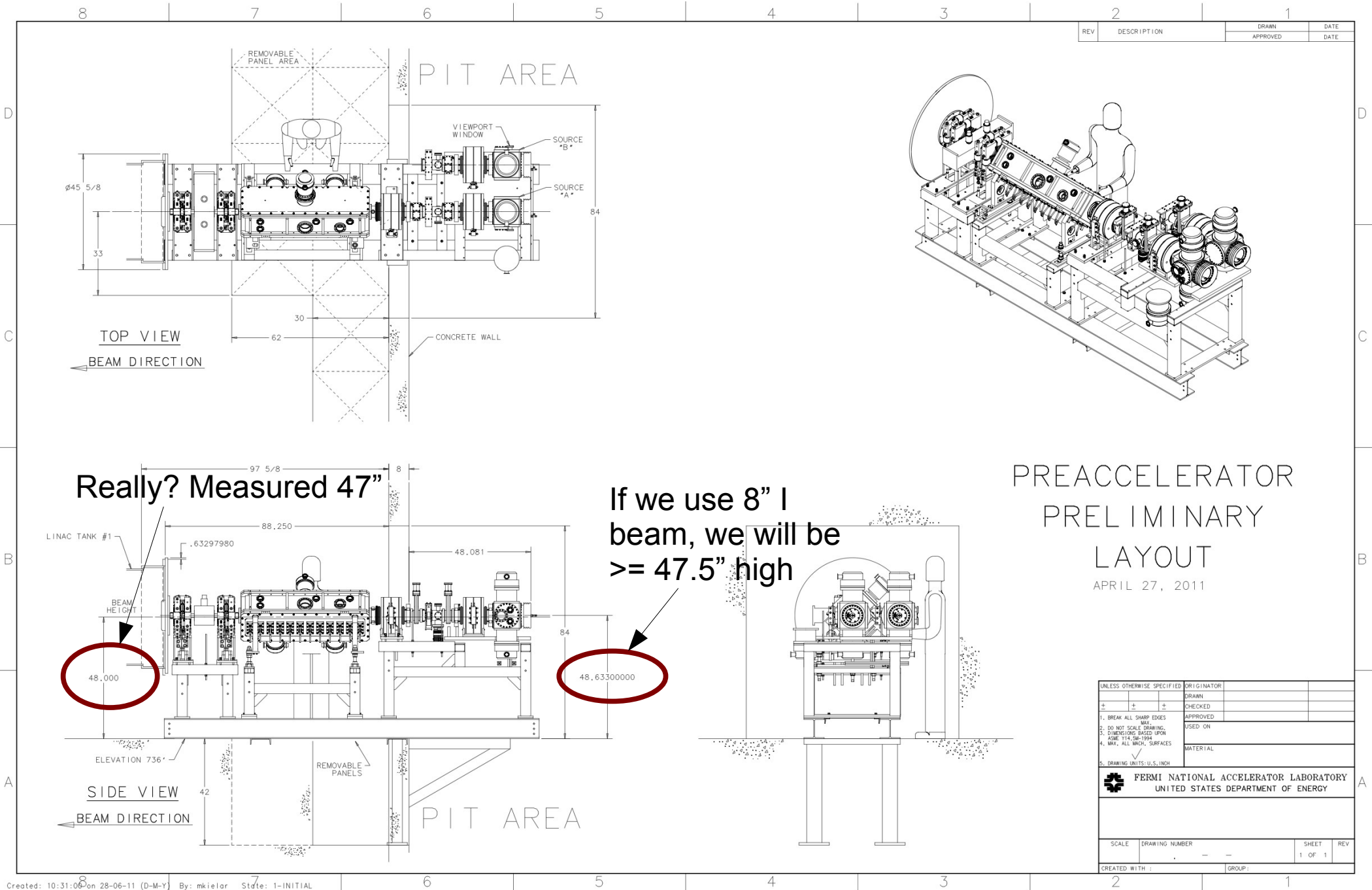


# Latest

- Spectrometer measurements are complete. Energy is  $\sim 700$  keV depending on the RFQ power.
  - Janet says “the measurements seem to be quite clear. One idea is, that we can try to readjust the electrodes ...”.
- Talked to Janet and Benjamin on Tuesday 24 Apr.
  - Janet is coming next week.
- RFQ opened up for surveyors.

# Plans

- Complete buncher conditioning.



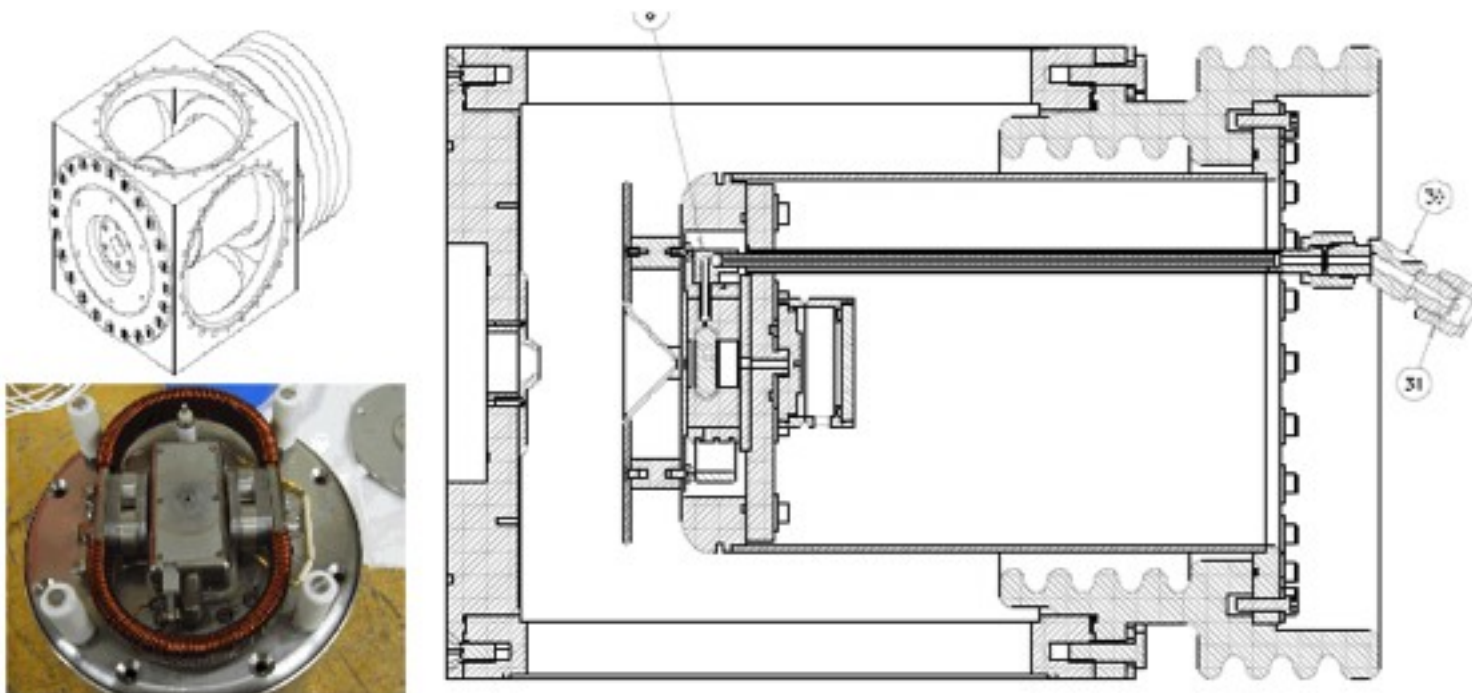
D

C

B

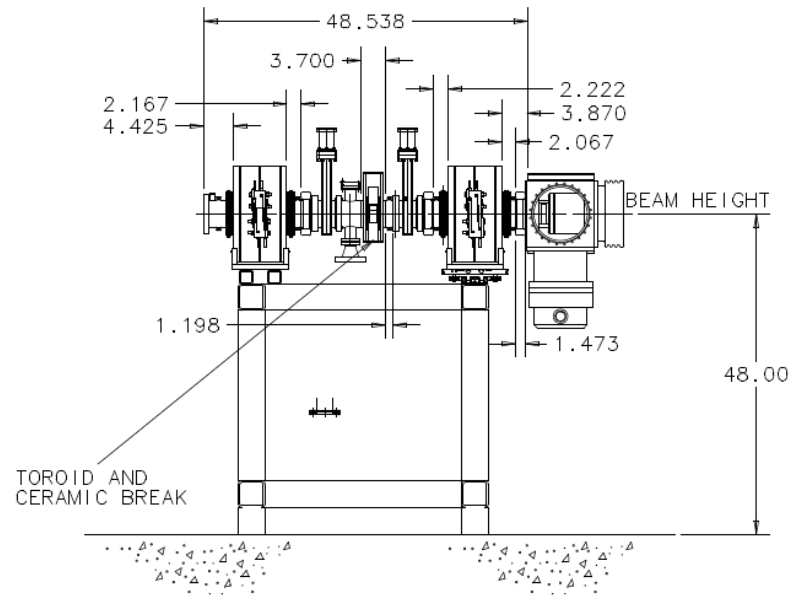
A

# Source Status



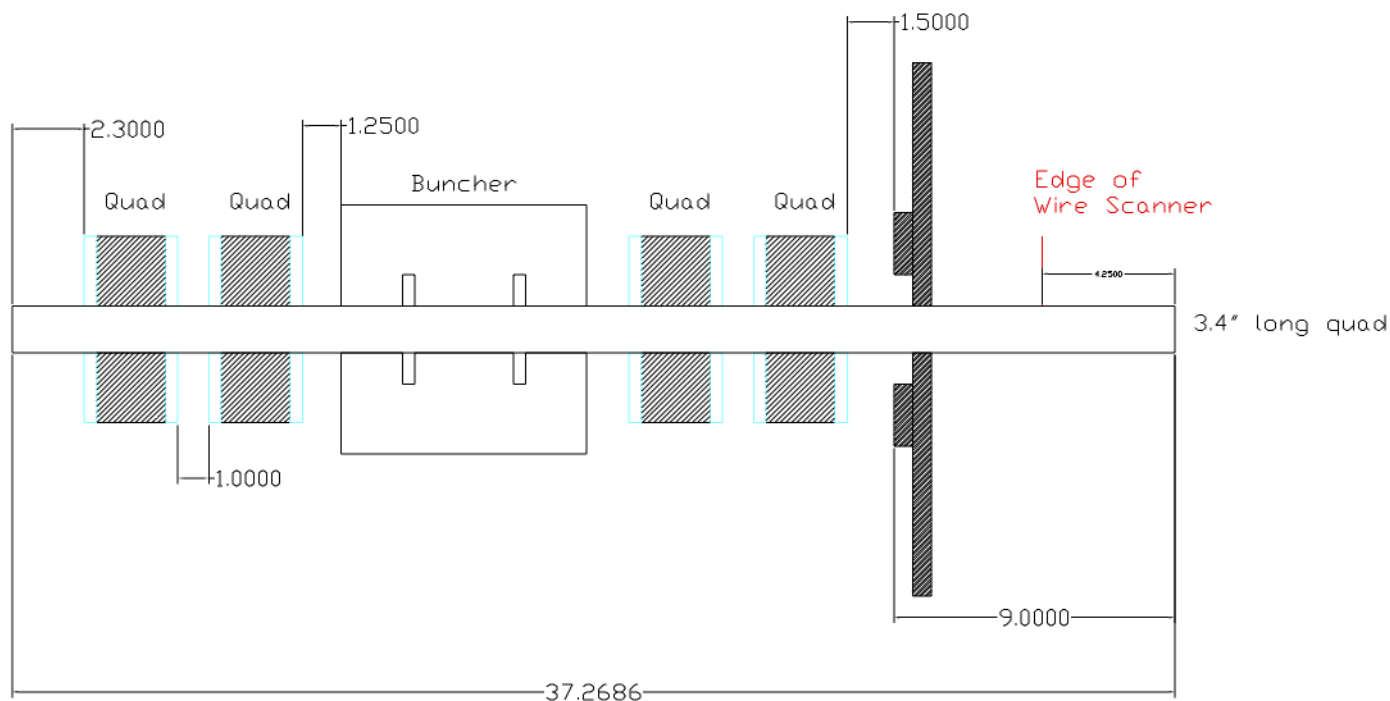
Device	Status	Comments
Source	new source installed 02 Mar 2012	Much more stable. A few sparks over 24 hour period

# LEBT Status



Device	Status	Comments
New slide	being built?	6 weeks to delivery. End of April?

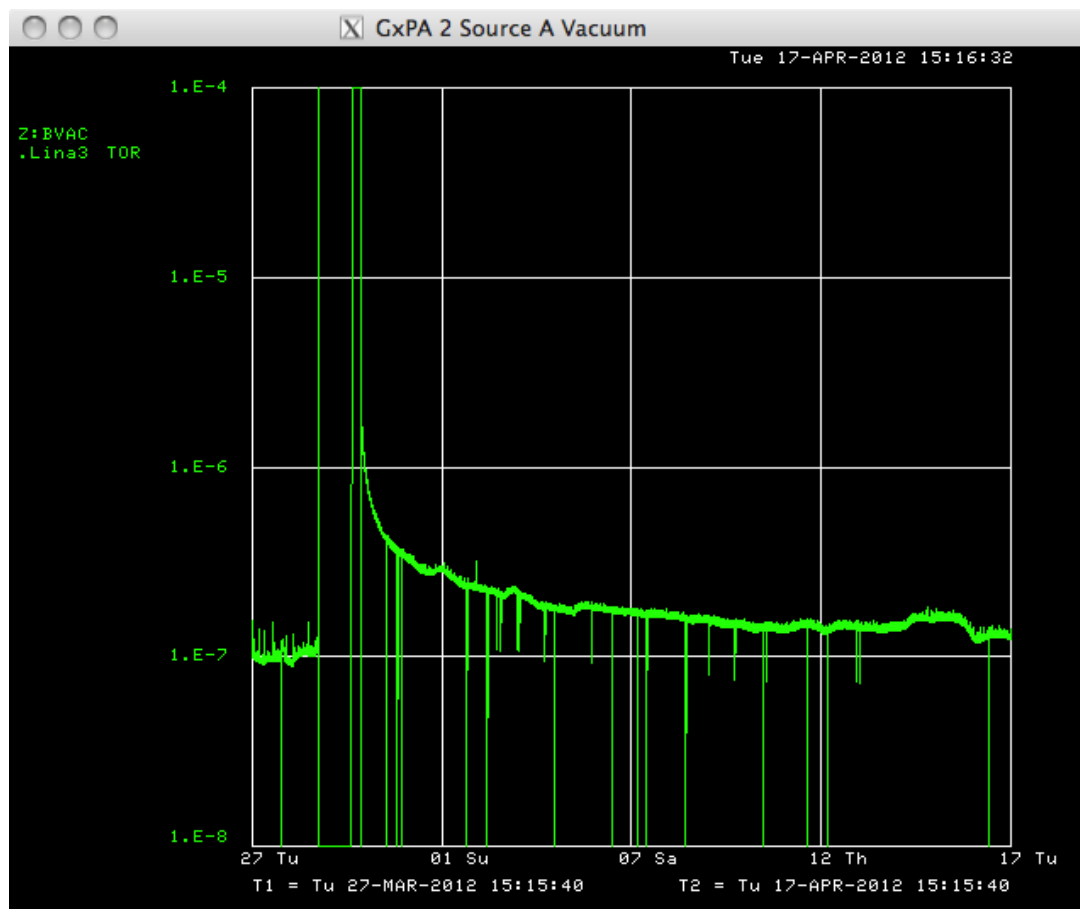
# MEBT Status



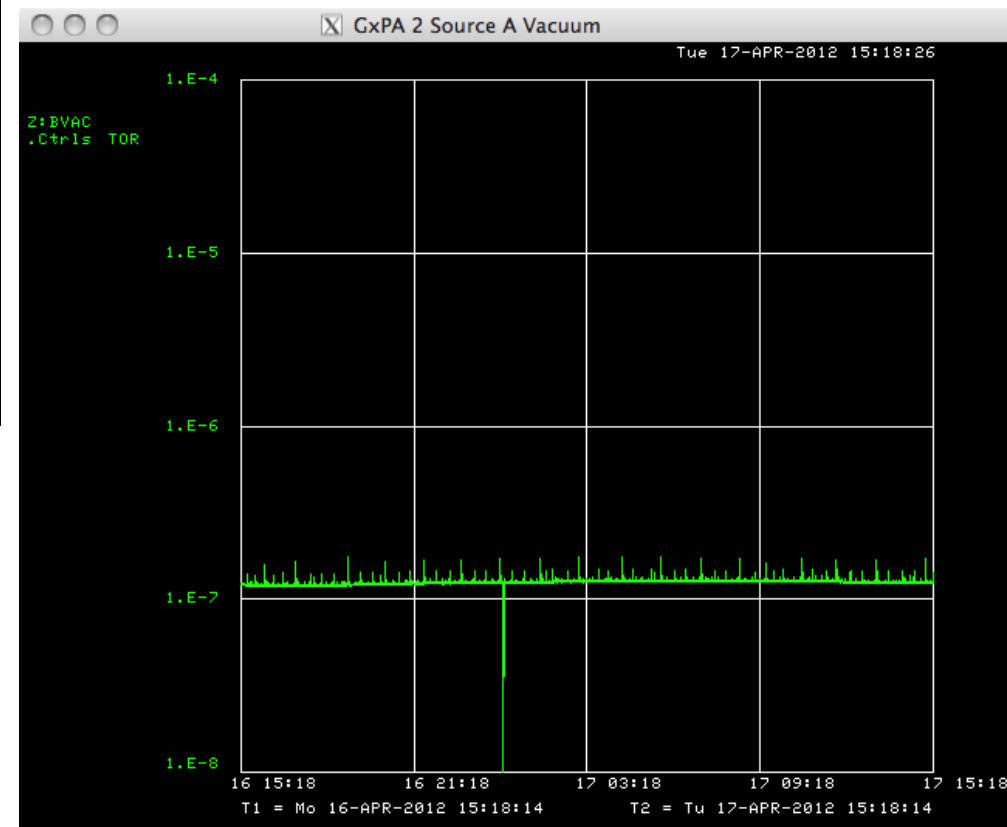
Device	Status	Comments
MEBT Stand	Being designed	Another 2 more weeks (13 Mar)
Quad doublets	Being paired and tested	1 <sup>st</sup> pair done. 2 <sup>Nd</sup> pair is nearly done.
Buncher	ion pump replaced with turbo power couple brazing problems	vacuum is improving Might need to make new wire for antenna



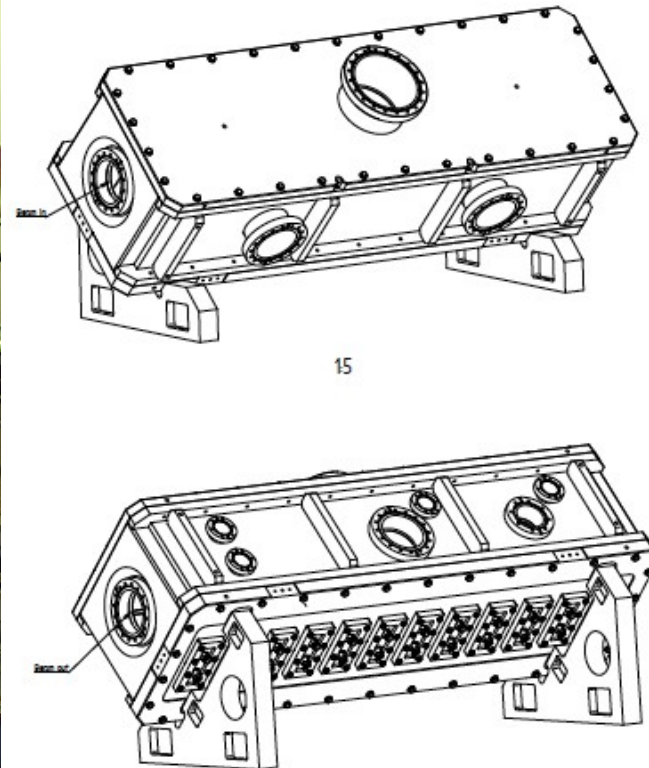
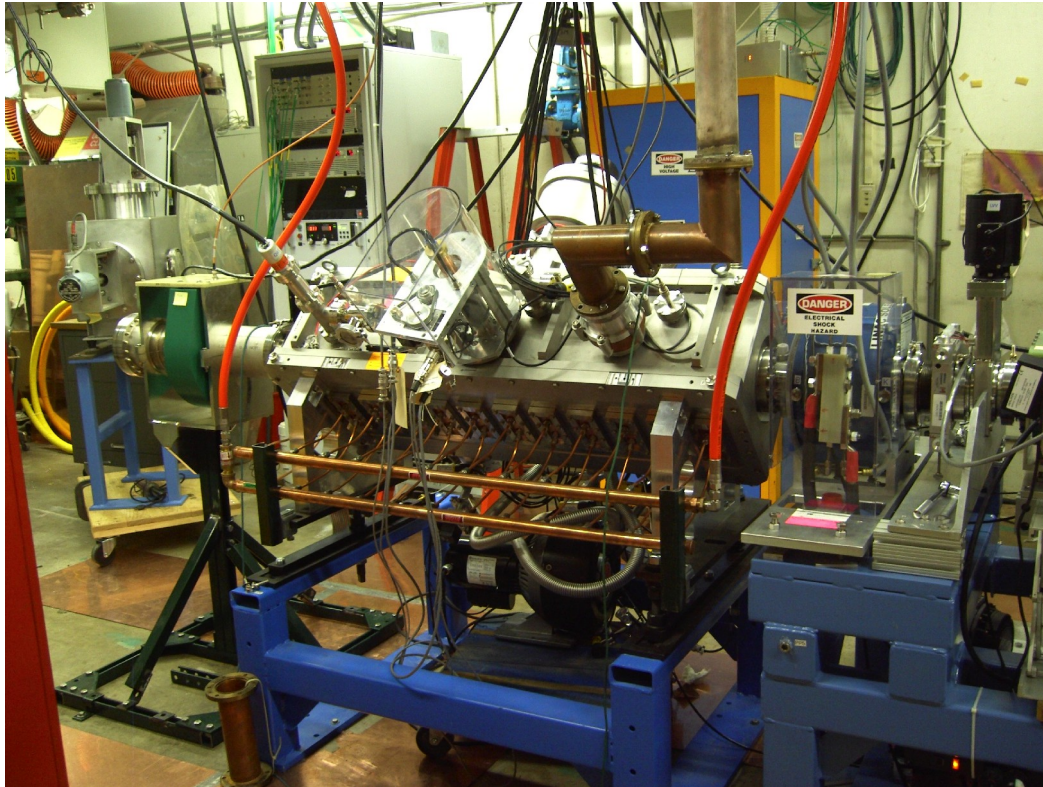
# Buncher vacuum



No more large spikes.  
~ $1.3e-7$  after 2.5 weeks  
of pumping.



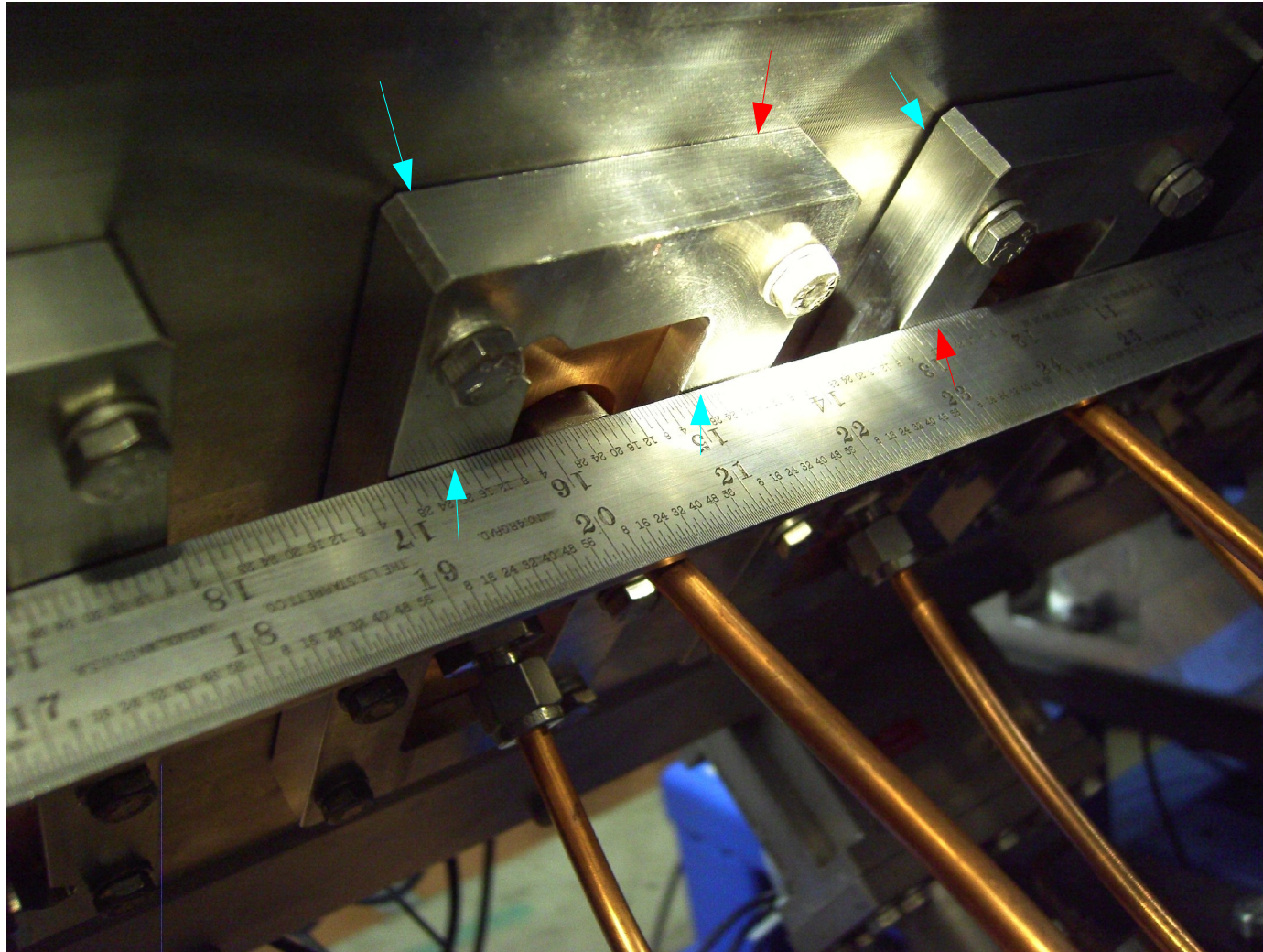
# RFQ Status



Device	Status	Comments
PLL work RFQ	Testing started Energy measured with BPM wires	Same low energy of ~700 keV



# Source of rod warping?



Gaps →

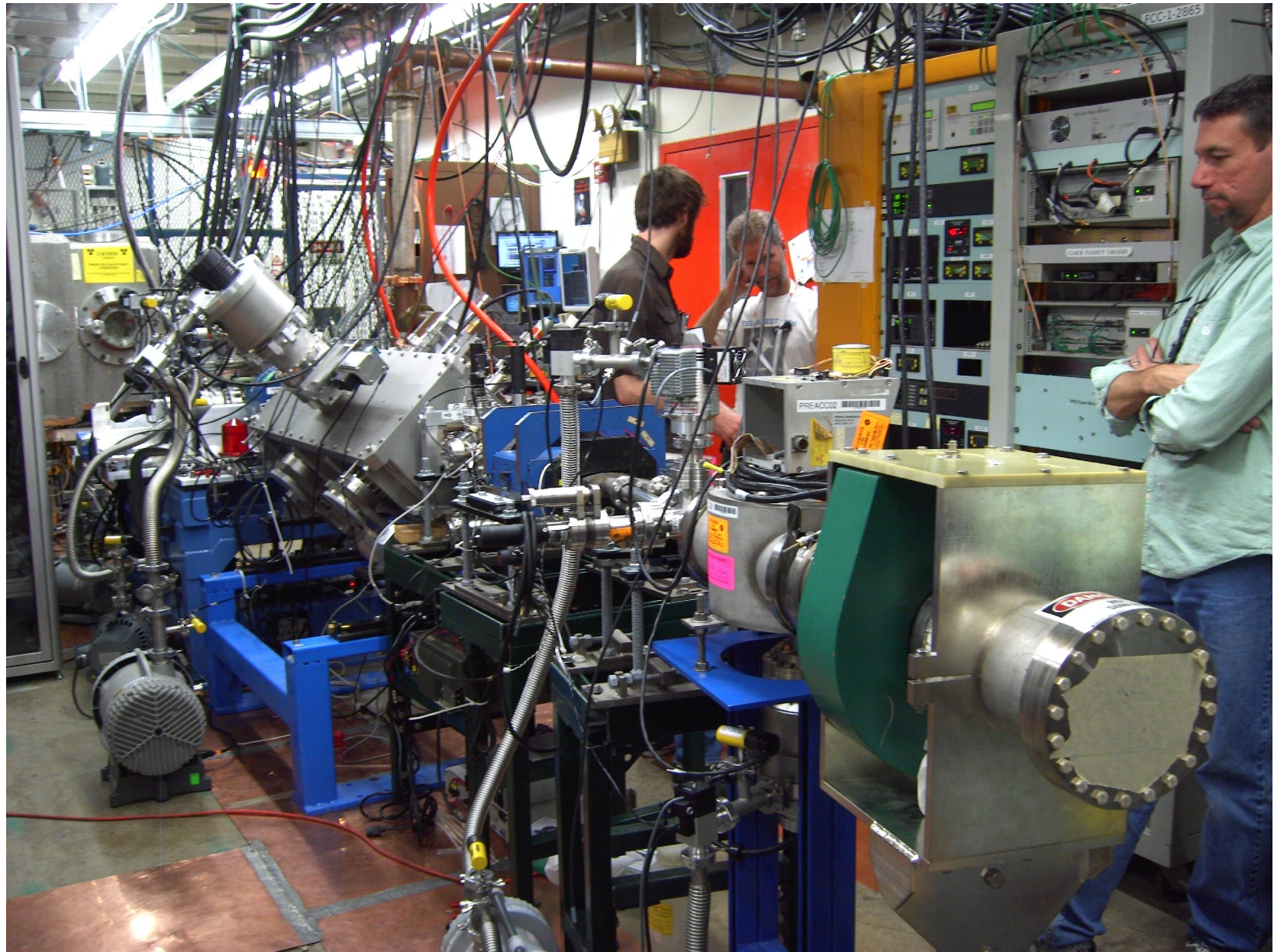
No gaps →

# Test area, test stand and instrumentation

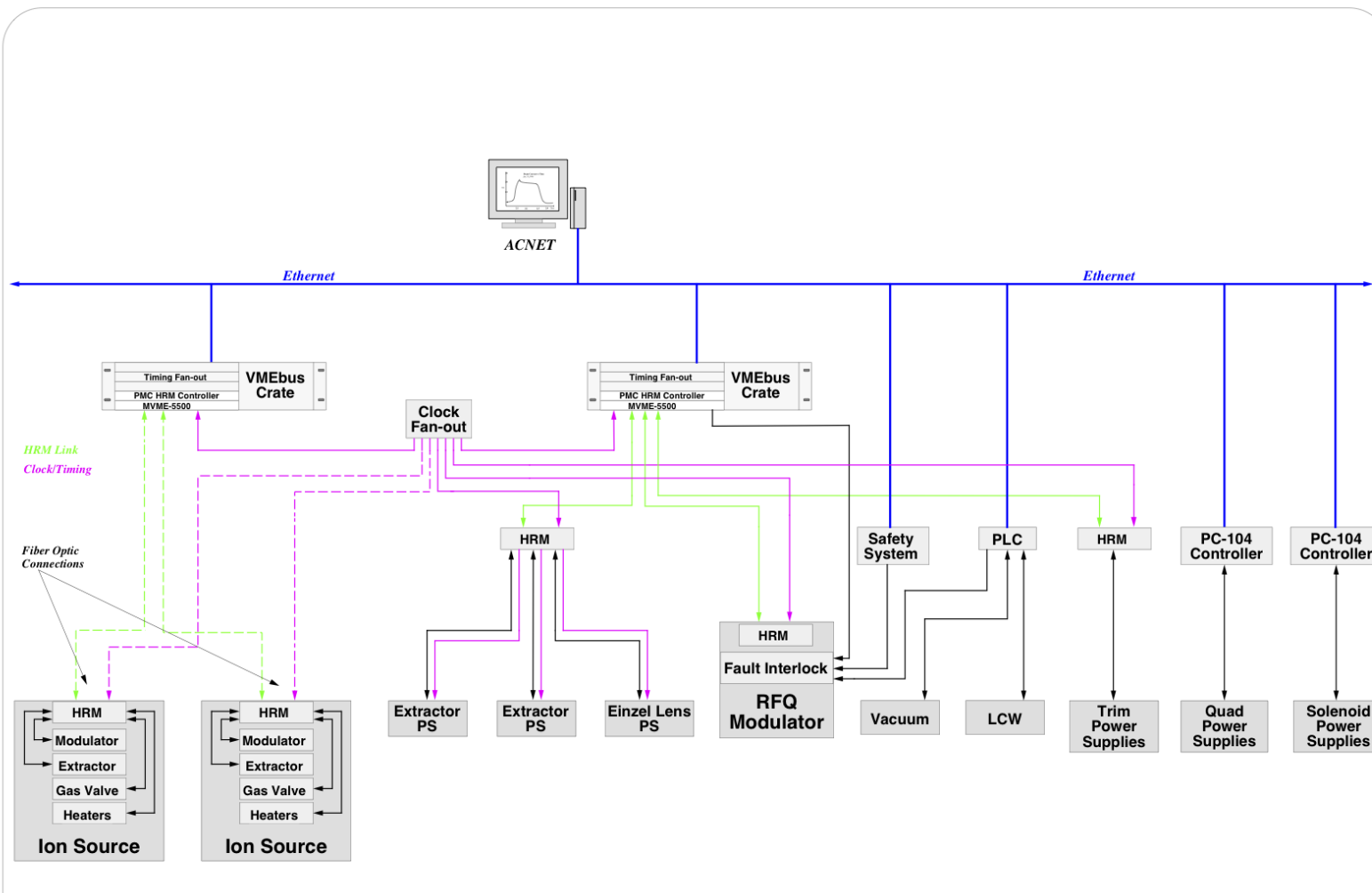
Device	Status	Comments
spectrometer	Spectrometer assembled and works!	Confirms TOF measurements.



# Spectrometer



# Controls



*Linac RFQ Upgrade Controls Block Diagram*

# Controls

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# Safety